MARCH FLIES (DIPTERA: TABANIDAE) AT CLAIRVIEW, CENTRAL QUEENSLAND, NOVEMBER 1985

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Abstract

Collections of march flies taken from human bait at Clairview, central Queensland on 18 days in November 1985 provided 95 females of 8 species. The catch was dominated by *Cydistomyia avida* (Bigot) (44 specimens) and *Scaptia subcana* (Walker) (26). Other species taken were: *Cydistomyia magnetica* Ferguson & Hill, *Dasybasis nemopunctata* (Ricardo), *Pseudotabanus distinctus* Ricardo, *Scaptia aureohirta* (Ricardo), a species near *Pseudotabanus silvester* (Bergroth), and an unidentified species of *Dasybasis* Macquart.

Introduction

There are few published accounts of march flies being collected in one locality in Queensland over an extended period. Spratt (1974) collected march flies at two localities west of Warwick, south-eastern Queensland at an altitude of 450 m and Yeates (1985) collected along a transect from sea level to 780 m at Cape Tribulation, northern Queensland. Clairview (22°07'S) is latitudinally midway between Cape Tribulation (16°05'S) and Warwick (28°12'S) and it was therefore considered worth while to record observations made at Clairview Beach, central Queensland from 10 to 29 November 1985.

Collections of march flies were made within 100 m of the sea-shore at an altitude of <10 m from two human baits and a black dog. Although there was no attempt to make systematic collections for fixed periods at specified locations, all specimens were taken in a very small area. The data are therefore unsuitable for statistical analysis but allow some valid comparisons. The collection has been deposited in the University of Queensland Insect Collection housed in the Department of Entomology

Results

Ninety five march flies, representing 8 species, were collected of which nearly half (44) were *Cydistomyia avida* and a quarter (26) *Scaptia subcana* (Table 1). During the period of observation the weather passed through three phases. From 10-18 November the days were sunny and hot. No march flies were taken over the first two days. Three were taken on the 12th but from the 13th to the 15th they were a nuisance and 73 (6 species) were collected. On the 19th the weather changed abruptly, becoming dull and cloudy, and from the 20-25 November it was very wet and only two march flies were taken. The weather improved on the 26th, being sunny for much of the day, and continued sunny and dry for the next 3 days.

Table 1. Catches of march flies at Clairview, 10-29 November 1985

Date	A	B	C	D	E	F	G	H	Total
10	-	-	-	-	-	-	-	-	0
11	-	-	-	-	-	-	-	-	0
12	2	1	-	-	-	-	-	-	3
13	13	4	1	-	2	2	-	-	22
14	No Observations - absent from Clairview								
15	11	6	-	-	-	-	-	-	17
16	3	2	-	-	-	-	-	-	5
17	4	7	3	-	-	1	-	-	15
18	8	1	2	1	1	1	-	-	14
19	-	-	2	-	-	-	-	-	2
20	No Observations - absent from Clairview								
21	-	-	-	-	-	-	-	-	0
22	1	-	-	-	1	-	-	-	2
23	-	-	-	-	-	-	-	-	0
24	-	-	-	-	-	-	-	-	0
25	-	-	-	-	-	-	-	-	0
26	-	1	-	-	-	-	-	-	1
27	1	2	-	2	-	-	-	-	5
28	-	2	-	1	-	-	1	1	5
29	1	-	1	1	-	-	1	-	4
Total	44	26	9	5	4	4	2	1	95

Key:
A = *Cydistomyia avida*
B = *Scaptia* (*Scaptia*) *subcana*
C = *Scaptia* (*Pseudoscione*) *aureohirta*
D = *Dasybasis nemopunctata*
E = *Pseudotabanus distinctus* (Note 1)
F = *Pseudotabanus* nr *silvester* (Note 2)
G = *Cydistomyia magnetica*
H = *Dasybasis* sp. (Note 3)

Note 1. Chainey (1987) has revised the genus *Mesomyia* Macquart raising the subgenera *Lilaea* Walker and *Pseudotabanus* Ricardo to generic rank.

Note 2. These specimens had narrow pale apical bands on the abdominal tergites but lacked the associated pale median triangles which are characteristic of *P. silvester*.

Note 3. This was a medium-large (13 mm), dark female with sparsely hairy eyes, basicosta without strong setulae, appendiculate R4, hyaline wings and with narrow, pale apical bands on the abdominal tergites.

March flies reappeared after the rain but were less abundant (15 over 4 days) and there was a change in composition of the biting population. *C. avida* was no longer dominant, *S. subcana* was present in smaller numbers but still formed a third of the catch. More *D. nemopunctata* were caught (4 *cf* 1), and *Cydistomyia magnetica* and *Dasybasis* sp. were taken for the first time.

Discussion

Both sexes of many march flies are known to feed on nectar and Mackerras (1956, 1960) records *Scaptia* Walker and *Dasybasis* feeding at *Leptospermum* Forst. et f. flowers. Among the march flies collected at Clairview three *C. avida* and three *P. distinctus* were covered in pollen indicating that they had visited flowers shortly before capture.

S. subcana took a comparatively long time to settle on human bait. It tended to congregate around dark objects such as a black dog and a pair of binoculars coated in a black rubbery material. The dog reacted to the presence of the march flies and few landed. Some were collected in a small hand net. *S. subcana* regularly landed on the binoculars before attacking the adjacent humans. Ferguson and Hill (1922) recorded *S. subcana* attacking persons on the beaches of Magnetic Island, northern Queensland, and *S. violacea* Macquart as showing a decided preference for persons dressed in dark colours. This attraction of march flies to black objects is the basis of the Manitoba trap in which a black sphere is suspended below a conical translucent trap. Spratt (1972) placed dry ice below the sphere and found that this modified trap performed as efficiently as an animal baited one.

The species collected at Clairview were within their recorded distributions (Mackerras 1959, 1960, 1961). Altitudinally, *S. aureohirta* and *C. avida* have a wide range, being collected at sea level at Clairview and above 500 m by Yeates (1985, *C. ?avida*) at Cape Tribulation. *P. distincta* was taken at sea level at both localities. On the coastal plain (< 50 m) at Cape Tribulation Yeates (1985) collected 32 march flies of 8 species from 19 September to 7 October 1982 and later (29 December 1982 to 3 January 1983) added two more species from a collection of 10 march flies. This is comparable to 8 species from 95 march flies at Clairview.

Spratt (1974) used traps to collect more intensively and for longer periods (October-May) under more temperate conditions. In 1970-71 at Durakai he caught 3944 march flies of 9 species, a collection dominated by *Dasybasis* spp. (99.1%) especially *D. hebes* (Walker) (84%). Two years later in a repeat exercise at Allan 30 km east of Durakai 1232 march flies of 12 species were caught. *Dasybasis* spp. were still dominant (76%) but there were fewer *D. hebes* (18%) and

appreciable numbers (>50) of 3 species of *Tabanus* L. and *Lilaea fuliginosa* (Taylor) (Table 1, Note 1). No species was common to both Clairview and Durakai/Allan.

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